

## New taxa of the genus *Polyommatus* LATREILLE, 1804 from Tadzhikistan

(Lepidoptera, Lycaenidae)

by

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**Summary:** *Polyommatus (Agrodiaetus) iphigenia ischkaschimicus* SHCHETKIN, 1986 is considered as a separate species *P. (A.) ischkaschimicus* stat. nov. *P. (A.) ischkaschimicus danilevskyi* subspec. nov. is described from Tadzhikistan (Gissar mountain range, Anzob pass).

**Резюме:** *Polyommatus (Agrodiaetus) iphigenia ischkaschimicus* Shchetkin, 1986 рассматривается как самостоятельный вид *P. (A.) ischkaschimicus* Shchetkin, 1986 stat. nov. *P. (A.) ischkaschimicus danilevskyi* subspec. nov. описан из Таджикистана (Гиссарский хребет, Анзобский перевал).

### Introduction

The taxa of *Polyommatus* subgenus *Agrodiaetus* HÜBNER, 1822 are rather variable in colour and wing pattern; their genital structures have no good distinguishing characters and only few bionomical data are known. That is why its classification remains uncertain. Up to now only recent infraspecific classification of two species *P. firdussii* FORSTER, 1956 and *P. phyllis* CHRISTOPH, 1876 seem to be well argumentated (ECKWEILER, 1989; ECKWEILER & ROSE, 1993).

My investigation in the taxa which belong to this subgenus allowed me to find out that the cover of the costa region of the upperside of forewings in males is of great taxonomical value. E.g. in *P. (A.) phyllis* CHRIST. this region is covered with dense white pubescence, in *P. (A.) firdussii* FORST. it is covered with white scales, in *P. (A.) cyanea* STAUDINGER, 1899 its cover is just the same as the surface of the wing.

The present work is based mainly on my own material. I also used some private and state butterfly collections: ZM – Zoological Museum of the Moscow State University, Russia; CB – collection of Dr. P. BOGDANOV, Moscow, Russia; CD – collection of the author, Moscow, Russia; CE – collection of Dr. W. ECKWEILER, Frankfurt am Main, Germany.

*Polyommatus (Agrodiaetus) ischkaschimicus* SHCHETKIN, 1986 **stat. nov.**

### Description

*P. (A.) iphigenia ischkaschimicus* SHCHETKIN, 1986 described from the Pamir mountains, is now considered as *P. (A.) iphigenides ischkaschimicus* SHCHETKIN, 1986 (ECKWEILER &

ROSE, 1993). Due to the courtesy of Dr. A. SVIRIDOV I had the opportunity to study the type series of this taxon (10 ♂♂, 1 ♀ from Shugnanskii mountain range, ZM). In reality it is not close either to *P. (A.) iphigenia* H.-S., 1847 distributed in Turkey (!) or to *P. (A.) iphigenides* STAUDINGER, 1886 known from the western part of the Gissar mountain range to Naryn valley. According to the cover of the costa area of the upperside of forewings in males which consists of scattered white scales, *P. ischkaschimicus* SHCHETKIN is closer to *P. (A.) poseidonides* STAUDINGER (distributed from Gissar to Pamir); but *P. ischkaschimicus* SHCHETKIN is well distinguished from the latter by its small size, well developed distal obscuration on the upperside of wings, which are shorter and wider. *P. (A.) iphigenides* STGR. has nearly the same form of wings but the pubescence of the costa area is very dense, as in *P. (A.) phyllis* CHRIST. (which occurs in Turkey, Transcaucasia and Northern Iran). So it is evident that *P. ischkaschimicus* SHCHETKIN has to be considered as a distinct species.

*Polyommatus (Agrodiaetus) ischkaschimicus danilevskyi* subsp. nov.  
(colour plate VIIb, figs. 1–4)

### Material

Holotype ♂: Tadzhikistan, Gissar mountain range, Anzob pass, 3000m, 2.VIII.1980, A. DANTCHENKO leg. (CD).

Paratypes: 4 ♂♂, same data (CB, CD); 2 ♂♂, 1 ♀, same locality, 23.–29.VIII.1953, A. V. TZVETAEV leg. (ZM); 1 ♂, Tadzhikistan, 28.VII.1966, Iskanderkul (leg. TZVETAEV?) (CE).

### Description

Males. Forewing length 15.0–15.3 mm. Upperside: the ground colour is metallic light blue and much lighter than in the nominative subspecies; forewings have a white narrow line costally, marginal obscuration is indistinct, the inner part of the marginal fringe is black, the outer part is white; the black marginal border is nearly indistinct. Underside: the ground colour of the forewings is grey, the narrow discal marking and a row of postdiscal spots is encircled with white, row of submarginal spots is darker than the ground colour, slightly brownish but poorly developed and indistinct in front part; the ground colour of the hindwings has a beige tint, the submarginal row of spots is very distinct and emarginated by red strokes at their outer margins, the antemarginal row is not as distinct, the postdiscal spots are a little smaller than on the forewings, white streak sharp, enlarged distally, basal greenish dust well developed.

Females. Forewing length 14.5 mm. Upperside: ground colour equally brown; the forewings have a narrow black discal stroke which is well developed, the inner part of the marginal fringe is brown, the outer part is white; the hindwings have reddish crescent markings, which are a little brighter than on forewings, the inner part of the marginal fringe is light brown and the outer part is white. Underside: the general pattern as in the male, but the ground colour being light brown.

### Variation

The specimens of the type series practically do not vary either in colour pattern or in size, but one male has poorly developed basal obscuration on the upperside of the hindwings.

## Comparison

The new subspecies differs from the nominative one by a more light blue colour and poorly developed marginal obscuration on the upperside of the wings.

## Bionomy

My specimens of the type series have been collected along a small stream to the north of Anzob pass. Up to now *P. (A.) ischkaschimicus* SHCHETKIN is known only from very high mountains, so phenologically it is the last species among the local representatives of the subgenus *Agrodiaetus* HÜBNER, 1822.

## Acknowledgements

My sincere thanks to Dr. ULF EITSCHBERGER for the publication of this paper. I am very grateful to Dr. A. SVIRIDOV (Zoological Museum of Moscow State University) for providing me with the opportunity to study the butterfly collections. I wish to express my sincere thanks to Dr. V. A. LUKHTANOV (St.-Petersburg), Dr. P. BOGDANOV (Moscow) and Dr. W. ECKWEILER (Frankfurt/Main) for their invaluable consultations. I gratefully acknowledge my friend Dr. M. DANILEVSKY (Moscow) for his kindly field assistance and general inspiration in our joint expeditions and also for critical reading of the original manuscript.

## References

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## Explanation of colour plate VIIb (p. 431):

- Fig. 1: *Polyommatus (A.) ischkaschimicus danilevskyi* subspec. nov., holotype ♂, upperside  
Fig. 2: *Polyommatus (A.) ischkaschimicus danilevskyi* subspec. nov., holotype ♂, underside  
Fig. 3: *Polyommatus (A.) ischkaschimicus danilevskyi* subspec. nov., paratype ♀, upperside  
Fig. 4: *Polyommatus (A.) ischkaschimicus danilevskyi* subspec. nov., paratype ♀, underside.

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3	4

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## Farbtafel VIIa

LUKHTANOV, V. A.: Eine neue Art der Gattung *Neolycaena* aus dem Dshungarischen Alatau in Kasachstan (Lepidoptera, Lycaenidae, Theclinae). – *Atalanta* **25**(1/2):199–202.

Abb. 1: *Neolycaena rufina* spec. nov., ♂, Paratypus, Kasachstan, Dshungarischer Alatau, Katutau-Gebirge, Koibyn-Tal, 60 km W Dsharkent, 1000m, 4.VI.1993, V. & A. LUKHTANOV leg. (in EMEM). Oberseite.

Abb. 2: *Neolycaena rufina* spec. nov., ♂, Paratypus, Kasachstan, Dshungarischer Alatau, Katutau-Gebirge, Koibyn-Tal, 60 km W Dsharkent, 1000m, 4.VI.1993, V. & A. LUKHTANOV leg. (in EMEM). Unterseite.

Abb. 3: *Neolycaena rufina* spec. nov., ♀, Paratypus, Kasachstan, Dshungarischer Alatau, Katutau-Gebirge, Koibyn-Tal, 60 km W Dsharkent, 1000m, 4.VI.1993, V. & A. LUKHTANOV leg. (in EMEM). Oberseite.

Abb. 4: *Neolycaena rufina* spec. nov., ♀, Paratypus, Kasachstan, Dshungarischer Alatau, Katutau-Gebirge, Koibyn-Tal, 60 km W Dsharkent, 1000m, 4.VI.1993, V. & A. LUKHTANOV leg. (in EMEM). Unterseite.

Aufnahmen: ULF EITSCHBERGER

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## Colour plate VIIb

DANTCHENKO, A. V.: New taxa of the genus *Polyommatus* LATREILLE, 1804 from Tadzhikistan (Lepidoptera, Lycaenidae). – *Atalanta* **25**(1/2):203–206.

Fig. 1: *Polyommatus* (A.) *ischkaschimicus danilevskyi* subspec. nov., holotype ♂, upperside

Fig. 2: *Polyommatus* (A.) *ischkaschimicus danilevskyi* subspec. nov., holotype ♂, underside

Fig. 3: *Polyommatus* (A.) *ischkaschimicus danilevskyi* subspec. nov., paratype ♀, upperside

Fig. 4: *Polyommatus* (A.) *ischkaschimicus danilevskyi* subspec. nov., paratype ♀, underside.

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**Farbtafel VIIa / Colour plate VIIb**

